

*ICP*

*BUNKER HILL*

*SUPERFUND SITE*

*ICP*

*INSTITUTIONAL  
CONTROLS PROGRAM*

# ***ICP***

## ***Taskforce Provisos:***

- **Institutional Controls must minimize inconvenience, cost and loss of land use options to local residents**
- **Institutional Controls must utilize, to maximum extent practicable, existing control mechanisms and local agencies**
- **Institutional Controls must be self-sustaining and impose no additional cost on local government, residents, or property owners**

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## ***WHAT IS IT?***

### **The Institutional Controls Program**

**Is a locally enforced set of regulations designed to ensure the integrity of clean soil and other protective barriers placed over contaminants left in place throughout the Bunker Hill Superfund Site.**

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## ***PURPOSE***

- **Protect public health**
- **Assist with local land transactions within the Bunker Hill Superfund Site**
  - **Conduct Commerce**

# **BLOOD LEAD**

## **Box Lead Health Intervention Summary Statistics 1988-1994**

Year	Number children in survey	Mean Blood Pb ( $\mu\text{g}/\text{dl}$ )	Number of children blood leads ( $\mu\text{g}/\text{dl}$ )			Percent Children $\geq 10$
			$\geq 25$	$\geq 15$	$\geq 10$	
1988*	230	9.9	7	35	105	46%
1989*	275	11.4	8	71	154	56%
1990	362	8.9	2	41	134	37%
1991	365	6.3	2	17	56	15%
1992	415	7.4	3	31	110	27%
1993	445	5.6	1	10	66	15%
1994	416	6.2	1	15	71	17%

\*does not include Pinehurst

## **Box Lead Health Intervention Summary Statistics 1995-2002**

Year	Number children in survey	Mean Blood Pb ( $\mu\text{g}/\text{dl}$ )	Number of children blood leads ( $\mu\text{g}/\text{dl}$ )			Percent Children $\geq 10$
			$\geq 25$	$\geq 15$	$\geq 10$	
1995	405	6.0	2	20	62	15%
1996	397	5.8	2	13	49	12 %
1997	337	5.4	0	6	36	11 %
1998	375	4.8	0	5	31	8%
1999	370	4.7	0	3	23	6%
2000	320	4.3	0	5	17	5%
2001	322	3.2	0	4	10	3%
2002	368	3.1	0	3	7	2%

# **DISCLOSURE ASSISTANCE**

**Disclosure assistance is provided to:**

- **Federal Underwriters**
- **Lending Institutions**
- **Appraisers**
- **Prospective Purchasers**

**662 Disclosures were completed in 2005**

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**All soil which contains lead in excess of 1000 ppm and lies within 12 inches of the final grade shall be:**

- **Removed and replaced**
- **Covered with an appropriate material or structure**



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## ***OBJECTIVES***

- To see that barriers are created and/or maintained
- Operate a system of activity controls and standards to keep remaining contaminants in place.

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## ***BARRIER:***

**Any physical structure, material, or mechanism that breaks the pathway between contaminants and human receptors.**

- **Buildings and parking lots**
- **Walls, floors, and ceilings**
- **Clean soil or gravel (<100 ppm lead)**
- **Asphalt and concrete**
- **Access control (fences, gates)**

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## ***HOW IT WORKS***

**All excavation, grading, and certain interior remodeling projects proposed within the boundaries of the Superfund Site must have approved permit(s) from the Panhandle Health District (PHD) and other permit authorities that have jurisdiction over land use issues.**

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## ***PERMITS ARE REQUIRED FOR:***

- **Large Exterior Projects**
  - Excavation (more than 1 cubic yard)
  - Building demolition
  - Subdivisions/Planned Unit Developments
- **Interior Projects**
  - Building renovations involving:
    - Removal of insulation
    - Ceiling removal that exposes attic dust
    - Work in dirt crawlspaces or basements

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- **Rights-of-Way**

(underground utilities, gas, water, poles,  
cable etc.)

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## ***PERMITTING***

The PHD permit must be issued and valid before building permits from other participating entities are valid.

## ***REDUNDANCY***

- Call before you dig
- Other permitting authorities

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## ***CONTRACTOR LICENSING***

All contractors involved in excavating, grading, construction, and certain interior remodeling projects within the Site must be licensed by PHD.

## ***PUBLIC UTILITIES & GOVERNMENT ENTITIES***

- Workers need to be licensed
- Maintain daily work logs

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## ***INSPECTIONS***

**48 hour notice, excluding weekends and holidays, is required.**



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## **Barrier Option Plan (BOP)**

**All projects that require engineered plans such as:**

- **New Subdivisions**
- **Planned Unit Developments (PUD)**

**must have a BOP prepared by a licensed engineer.**

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- **Record of Compliance (Optional)**
  - **Small (less than 1 cubic yard) Exterior Projects (fencing, planting bushes, deck footers, etc.)**

**Upon request, the homeowner will be given a Record of Compliance that will be entered into PHD's tracking database.**

# HOMEOWNER SMALL PROJECTS



# *ICP*

## *FEEES*

There are no fees associated with contractor licensing, or work permits issued by PHD.

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## ***DISPOSAL***

**Soils with lead levels greater than 350 ppm lead may be disposed of at PHD's disposal site at PHD's discretion.**



# *DISPOSAL PRACTICES*



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## ***VIOLATIONS:***

- Guilty of a misdemeanor
- Fined \$300/day for each day out of compliance **and/or**
- Six months of imprisonment in the county jail

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## ***IN ADDITION:***

**Any person, association, or corporation, or the officer thereof found to be in violation of these rules shall be liable for any expenses incurred by the PHD in enforcing this act, or in removing or terminating any nuisance or health hazard.**



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## ***DATABASE***

**The Institutional Controls Program maintains a database, tracking system to assist the public, lenders, and prospective purchasers of property within the Site.**

## ***INCLUDING:***

- **Sampling data**
- **Remediation plot plans**
- **ICP permits issued**
- **Other barrier related information**

# ***BEST MANAGEMENT PRACTICES***





# **BEST MANAGEMENT PRACTICES**



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*AT WORK IN THE  
COMMUNITY*

# ICP WORKS



BEFORE



AFTER



SILVER  
MOUNTAIN  
GONDOLA



# *ICP WORKS*



*BEFORE*



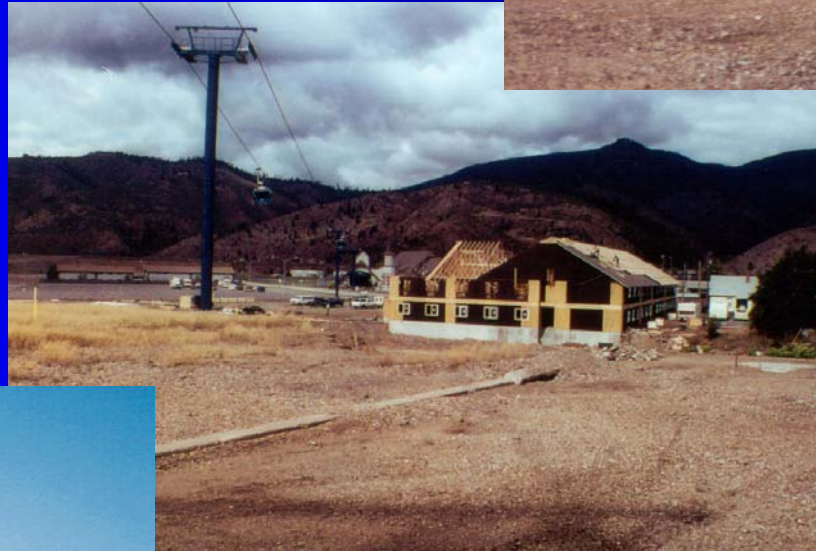
*AFTER*

MORNING  
STAR  
LODGE

# ICP WORKS



BEFORE



AFTER



**SUPER 8  
MOTEL**



# ICP WORKS



McDONALD'S



# ICP WORKS

BEFORE

AFTER

SUNNYSIDE  
ELEMENTARY  
SCHOOL



# ICP WORKS



## SHOSHONE MEDICAL CENTER

DURING

CONSTRUCTION



2003 10 14

# SHOSHONE MEDICAL CENTER



*AFTER*

***ICP***

***WE ARE  
DIFFERENT***



# 1989 YARD LEAD CONCENTRATIONS



**Terra Graphics**  
Environmental Engineering, Inc.

FILE  
1998-10-10LRG/Smelterville/G2002  
DATE **August 2003**  
PROJECT NO.

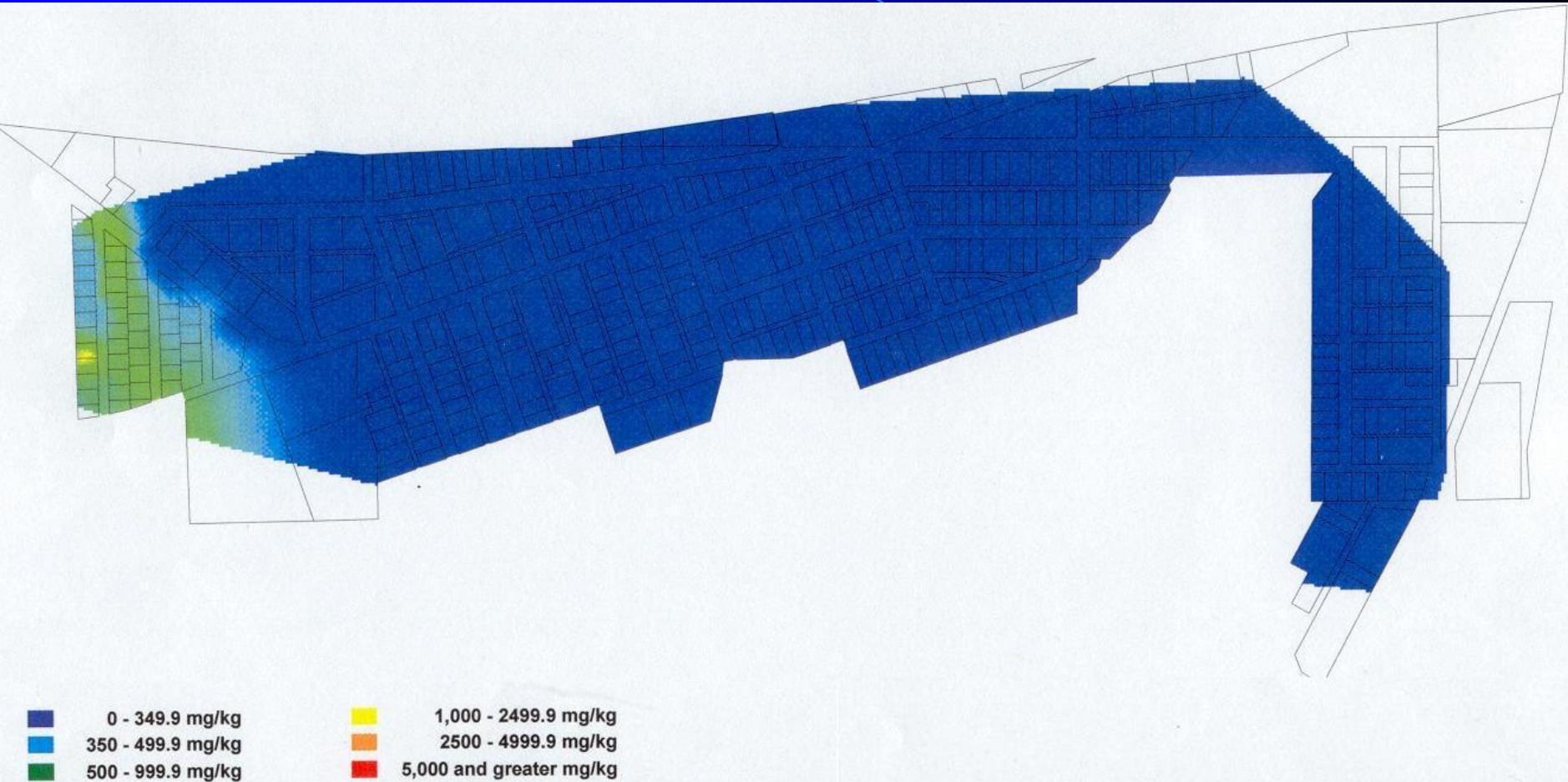
REQUESTOR **S. Spalinger**  
DESIGNER **B. Bailey**  
CARTOGRAPHER **B. Bailey**  
APPROVED

**Figure 1**

**1989 Yard Lead Concentration Zones for Smelterville, Idaho**

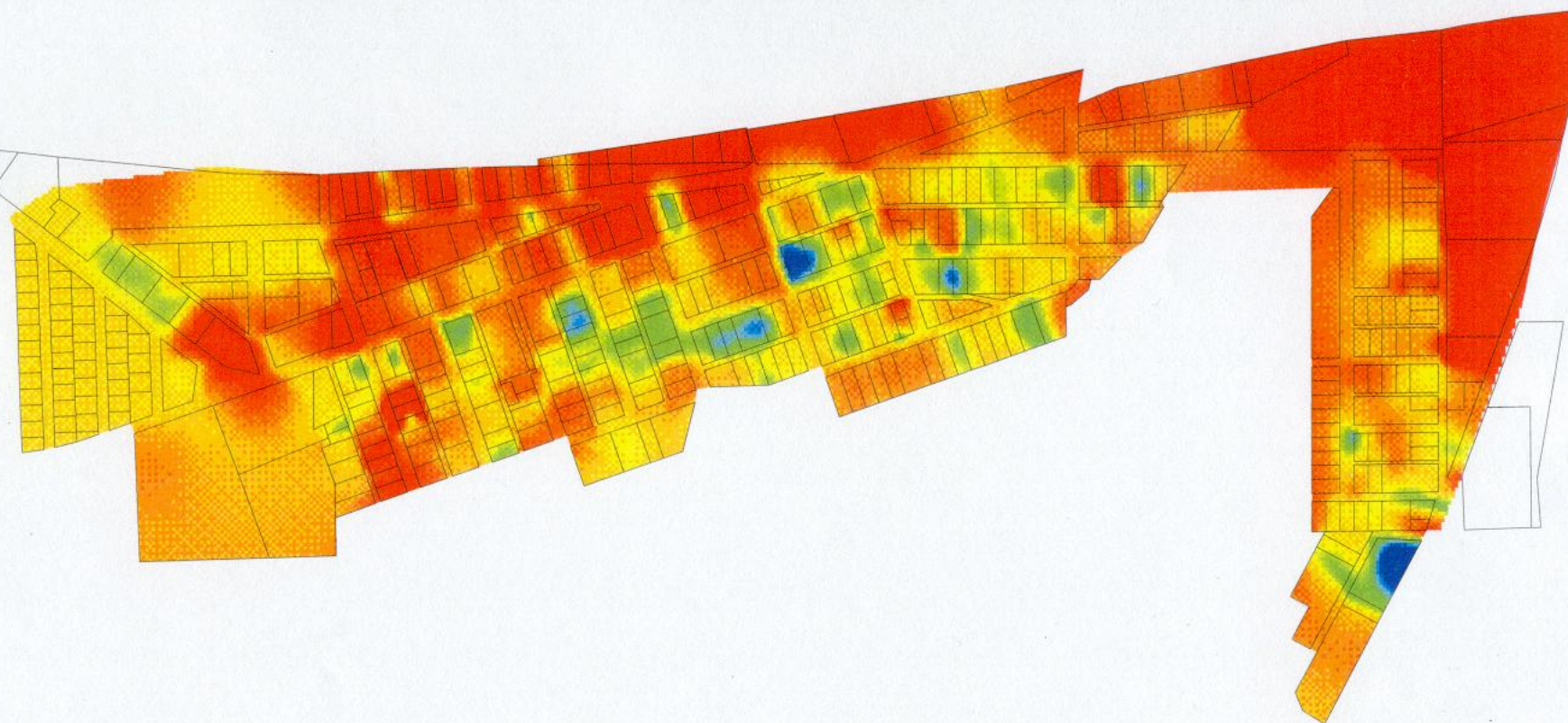
Data based on geometric means of soil lead concentrations. Soil samples taken within a 200 foot vicinity of properties.

# 2002 YARD LEAD CONCENTRATIONS





# LEAD CONCENTRATIONS BELOW THE BARRIER



0 - 349.9 mg/kg  
350 - 499.9 mg/kg  
500 - 999.9 mg/kg

1,000 - 2499.9 mg/kg  
2500 - 4999.9 mg/kg  
5,000 and greater mg/kg

Figure 2b

Current Subsurface Soil (Below Barrier)  
Lead Concentrations for  
Smelterville, Idaho

FILE  
1996-10-10 LRRG/Smelterville/smeltbarrier  
DATE  
October 2003  
PROJECT NO.

REQUESTOR  
S. Spalinger  
DESIGNER  
B. Bailey  
CARTOGRAPHER  
B. Bailey  
APPROVED



**Terra Graphics**  
Environmental Engineering, Inc.

*ICP*

ISSUES  
AND  
CONCERNS





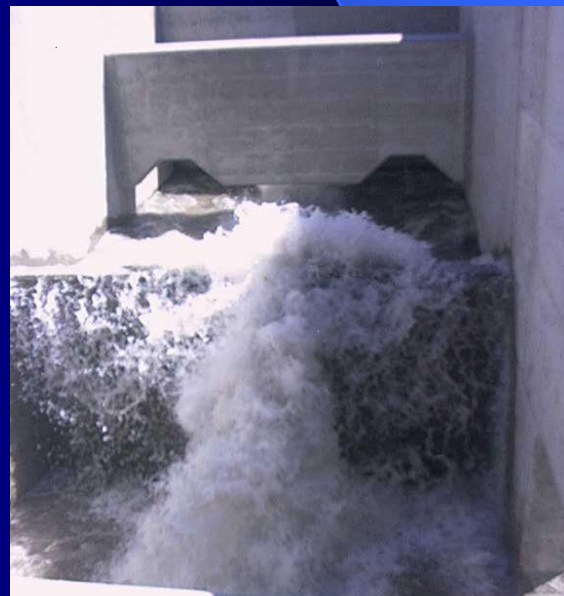


# *FLOODING*





# INFRASTRUCTURE





# INFRASTRUCTURE



# **DISPOSAL**

**Critical to the successful operation of this, or any Institutional Controls Program is a fully funded, centrally located soil depository.**

**It must be:**

- **Easily accessible**
- **Convenient to use**
- **ICP controlled**

***ICP***

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***THANK YOU***